

# Mineral Industry Surveys

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## SILICON IN JUNE 2006

Preliminary data for June 2006 indicate that domestic production and net shipments of silicon ferroalloys, on a gross-weight basis, decreased by 6% and 9%, respectively, compared with those in May 2006, according to the U.S. Geological Survey. Stocks decreased slightly compared with those of the prior month. Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys. Production-related statistics for silicon metal were concealed to avoid disclosing company proprietary data.

Domestic production and shipments of ferrosilicon during the second quarter of 2006 were 4% lower and 5% higher, respectively, than those of the first quarter of 2006. Domestic production and net shipments of ferrosilicon during the first half of 2006 were 14% and 8% higher, respectively, compared with those during the first half of 2005. All domestic data for

ferrosilicon have been combined to avoid disclosing company proprietary data.

Based on a gross-weight comparison of May 2006 export data (table 2) with those of April 2006, ferrosilicon exports increased by 24%, owing to increases in both ferrosilicon trade categories. Silicon metal exports decreased by 28%, owing primarily to decreases in the 99.00% to 99.99% silicon and "other" silicon metal trade categories.

Based on a gross-weight comparison of May 2006 import data (table 3) with those of the prior month, ferrosilicon imports increased by 42%, owing primarily to an increase in the ferrosilicon, 55% to 80% silicon, other, trade category. Silicon metal imports decreased by 15% during the same period, because of a decrease in the 99.00% to 99.99% silicon metal trade category.

### Prices, cents per pound, silicon content

	<u>50% Ferrosilicon<sup>1</sup></u>	<u>75% Ferrosilicon<sup>2</sup></u>	<u>Silicon Metal<sup>2</sup></u>
<b>June 1</b>	<b>66.00-68.00</b>	<b>53.00-57.00</b>	<b>74.00-77.00</b>
<b>June 8</b>	<b>67.00-70.00</b>	<b>57.00-62.00</b>	<b>74.00-77.00</b>
<b>June 15</b>	<b>68.00-71.00</b>	<b>60.00-63.00</b>	<b>74.00-77.00</b>
<b>June 22</b>	<b>68.00-71.00</b>	<b>60.00-63.00</b>	<b>75.00-78.00</b>
<b>June 29</b>	<b>68.00-71.00</b>	<b>60.00-63.00</b>	<b>75.00-78.00</b>

<sup>1</sup>Source: Ryan's Notes, North American transaction price.

<sup>2</sup>Source: Platts Metals Week, dealer import price.

TABLE 1  
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2006<sup>1,2,3</sup>

(Metric tons)

Material	Gross production <sup>4</sup>		Net shipments		Stocks, June 30
	June	Year to date	June	Year to date	
Ferrosilicon, all grades <sup>5,6</sup>	19,600	124,000	16,600	102,000	21,300
Silicon metal, excludes semiconductor grades	W	W	W	W	W

W Withheld to avoid disclosing company proprietary data.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Includes U.S. Geological Survey estimates.

<sup>3</sup>Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

<sup>4</sup>Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

<sup>5</sup>Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

<sup>6</sup>Includes miscellaneous silicon alloys.

TABLE 2  
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN MAY 2006<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	407	244	\$440,000	1,680	1,010	\$1,760,000
Colombia	16	12	23,400	29	21	41,000
Malaysia	--	--	--	11	8	15,600
Mexico	85	51	113,000	573	346	747,000
Total	508	307	576,000	2,300	1,390	2,570,000
Other ferrosilicon:						
Brazil	41	21	51,800	80	40	93,600
Canada	233	117	240,000	1,060	531	1,080,000
Colombia	22	10	31,200	48	22	68,300
Indonesia	--	--	--	21	10	25,100
Korea, Republic of	--	--	--	2	1	11,400
Mexico	55	28	64,500	315	158	402,000
Spain	--	--	--	8	4	9,360
Switzerland	--	--	--	34	17	26,700
Total	351	175	387,000	1,570	783	1,710,000
Total ferrosilicon	859	482	963,000	3,870	2,170	4,280,000

See footnotes at end of table.

TABLE 2--Continued  
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN MAY 2006<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	129	XX	\$9,180,000	706	XX	\$55,600,000
Finland	6	XX	248,000	42	XX	1,680,000
Germany	144	XX	7,980,000	805	XX	44,800,000
Italy	12	XX	1,120,000	52	XX	4,600,000
Japan	559	XX	41,900,000	3,000	XX	233,000,000
Korea, Republic of	112	XX	8,210,000	538	XX	46,100,000
Malaysia	9	XX	1,160,000	37	XX	5,040,000
Norway	163	XX	7,690,000	897	XX	43,200,000
Taiwan	58	XX	3,930,000	221	XX	14,300,000
United Kingdom	12	XX	1,460,000	60	XX	6,870,000
Other (38 countries)	50	XX	2,880,000	162	XX	11,000,000
Total	1,250	1,250 <sup>c</sup>	85,700,000	6,520	6,520 <sup>c</sup>	466,000,000
99.00% - 99.99% silicon:						
Belarus	--	--	--	34	34	37,700
Brazil	85	84	198,000	423	419	1,060,000
China	2	2	7,500	328	325	894,000
Germany	2	2	3,420	299	296	860,000
India	--	--	--	52	51	150,000
Italy	28	28	83,600	28	28	83,600
Japan	--	--	--	25	24	28,300
Mexico	14	14	22,900	21	21	33,000
Sweden	10	10	14,500	17	17	24,300
United Kingdom	--	--	--	23	23	32,200
Other (5 countries)	20	20	42,300	41	40	78,000
Total	162	160	372,000	1,290	1,280	3,280,000
Other silicon:						
Brazil	--	--	--	38	37	50,200
Canada	40	38	39,900	206	200	246,000
China	42	40	490,000	497	481	1,640,000
Germany	21	20	243,000	28	26	261,000
Hong Kong	46	43	539,000	55	52	628,000
Japan	--	--	--	446	426	2,370,000
Korea, Republic of	170	165	348,000	1,470	1,430	2,070,000
Mexico	11	10	51,500	56	55	185,000
Netherlands	6	6	74,800	105	100	1,080,000
Panama	--	--	--	20	20	24,100
Other (8 countries)	3	3	7,950	62	60	205,000
Total	337	325	1,800,000	2,990	2,890	8,760,000
Total silicon metal	1,750	1,740	87,900,000	10,800	10,700	478,000,000

<sup>c</sup>Estimated. XX Not applicable. --Zero.

<sup>1</sup>Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN MAY 2006<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Brazil	--	--	--	20	13	\$24,500
China	33	21	\$56,000	35	23	58,800
France	132	83	214,000	309	191	494,000
Total	164	105	270,000	363	227	578,000
55% - 80% silicon, Other:						
Brazil	674	503	566,000	2,640	1,970	2,050,000
Canada	883	662	775,000	4,300	3,260	4,050,000
China	12,200	9,230	7,520,000	48,300	36,700	31,500,000
France	256	181	472,000	2,190	1,490	4,070,000
Germany	67	49	311,000	216	160	970,000
Norway	1,080	790	1,270,000	3,360	2,480	4,230,000
Russia	9,870	7,360	6,430,000	25,900	19,100	16,100,000
South Africa	1,250	940	922,000	2,520	1,880	1,640,000
Ukraine	--	--	--	3,050	2,300	1,740,000
Venezuela	6,000	4,500	3,760,000	18,100	13,600	11,500,000
Other (4 countries)	28	21	65,000	120	78	293,000
Total	32,300	24,200	22,100,000	111,000	83,000	78,100,000
More than 90% silicon, China	--	--	--	21	19	6,300
Magnesium ferrosilicon:						
Argentina	235	105	218,000	844	373	795,000
Brazil	--	--	--	477	213	453,000
Canada	585	274	613,000	3,090	1,430	3,100,000
China	--	--	--	303	139	278,000
France	38	18	43,400	895	430	806,000
India	--	--	--	69	31	63,600
Japan	16	7	36,700	63	28	119,000
Netherlands	--	--	--	163	76	119,000
Norway	1,010	464	885,000	4,800	2,200	4,270,000
Russia	--	--	--	2,100	943	854,000
Other (3 countries)	18	4	21,600	76	32	97,700
Total	1,900	872	1,820,000	12,900	5,900	11,000,000
Other ferrosilicon:						
Brazil	--	--	--	43	6	56,300
Canada	946	265	828,000	3,810	1,020	3,230,000
China	1,300	979	820,000	1,300	979	820,000
France	18	9	16,700	58	42	112,000
India	--	--	--	71	31	59,700
United Kingdom	--	--	--	1	1	2,280
Total	2,260	1,250	1,660,000	5,280	2,070	4,280,000
Total ferrosilicon	36,600	26,500	25,800,000	129,000	91,200	94,000,000

See footnotes at end of table.

TABLE 3--Continued  
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN MAY 2006<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Belgium	--	XX	--	5	XX	\$42,900
China	9	XX	\$410,000	18	XX	1,290,000
France	4	XX	336,000	21	XX	1,880,000
Germany	72	XX	6,670,000	342	XX	26,900,000
Italy	35	XX	4,360,000	120	XX	10,400,000
Japan	26	XX	2,350,000	132	XX	11,200,000
Korea, Republic of	4	XX	824,000	18	XX	3,030,000
Spain	--	XX	--	4	XX	30,600
Sweden	--	XX	--	8	XX	54,300
Taiwan	--	XX	--	6	XX	759,000
Other (10 countries)	6	XX	97,900	17	XX	398,000
Total	157	157 <sup>e</sup>	15,000,000	693	693 <sup>e</sup>	56,000,000
99.00% - 99.99% silicon:						
Australia	1,600	1,590	2,410,000	5,850	5,810	8,830,000
Brazil	3,850	3,810	6,020,000	16,600	16,400	24,800,000
Canada	916	909	1,480,000	6,520	6,470	10,600,000
China	70	67 <sup>3</sup>	99,000	76	74	109,000
Germany	--	--	--	(4)	(4)	2,250
Norway	--	--	--	2,820	2,780	5,670,000
Philippines	107	106	123,000	483	444	532,000
South Africa	2,400	2,380	5,750,000	14,700	14,600	22,400,000
Sweden	4	4	23,400	17	17	106,000
United Kingdom	45	6 <sup>3</sup>	80,900	175	24	345,000
Total	8,990	8,870	16,000,000	47,300	46,700	73,300,000
Other silicon:						
Australia	--	--	--	96	95	150,000
Belgium	--	--	--	14	13	41,500
Brazil	1,030	1,010	1,320,000	3,630	3,580	5,140,000
Canada	855	839	1,320,000	3,380	3,250	4,740,000
Japan	12	(4)	12,600	35	8	53,100
Norway	--	--	--	1,000	985	1,550,000
Philippines	--	--	--	18	18	20,200
Sweden	26	1	28,600	65	2	71,000
Ukraine	480	473	600,000	1,810	1,780	2,160,000
United Kingdom	196	188	223,000	275	266	348,000
Other (3 countries)	--	--	--	(4)	(4)	11,400
Total	2,590	2,510	3,510,000	10,300	9,990	14,300,000
Total silicon metal	11,700	11,500	34,500,000	58,300	57,400	144,000,000

<sup>e</sup>Estimated. XX Not applicable. -- Zero.

<sup>1</sup>Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.